

**CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.1)**Applicant(s): **Kazuhide Nakajima et al.**Docket No.  
**10/523460**  
14321.05Application No.  
UnassignedFiling Date  
February 4, 2005Examiner  
UnassignedCustomer No.  
022913Group Art Unit  
UnassignedInvention: **SINGLE MODE OPTICAL FIBER WITH ELECTRON VACANCIES**

I hereby certify that the following correspondence:

Transmittal Letter (2 pgs, in duplicate); Preliminary Amendment (19 pgs.); Combined Declaration and Power of Attorney (5 pgs.) Assignment (4 pgs.); International PCT Application (9 pgs.) English Translation of International Application (28 pgs.); Copy of International Search Report (4 pgs.) Verification of Translation (1 pg.); Official drawings (10 pgs.); Amended drawings (5 pgs) PTO-2038 form; postcard; and Certificate of Express Mailing Label

*(Identify type of correspondence)*

is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

February 5, 2005*(Date)*Andrea H. Maxfield*(Typed or Printed Name of Person Mailing Correspondence)**(Signature of Person Mailing Correspondence)*EV 566 183 617 US*("Express Mail" Mailing Label Number)***Note: Each paper must have its own certificate of mailing.**

FORM PTO-1390 (Modified), U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE  
(REV. 12-2004)

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

14321.65

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

**10/523460**INTERNATIONAL APPLICATION NO.  
PCT/JP2004/004504INTERNATIONAL FILING DATE  
March 30, 2004PRIORITY DATE CLAIMED  
April 17, 2003

## TITLE OF INVENTION

SINGLE MODE OPTICAL FIBER WITH ELECTRON VACANCIES

## APPLICANT(S) FOR DO/EO/US

Kazuhide Nakajima

Katsusuke Tajima

Isumi Sankawa

Kazuo Hogari

Jian Zhou

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:


1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☐ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4. ☒ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c)(2))
  - a. ☒ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☒ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☒ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☒ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☐ have not been made and will not be made.
8. ☒ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☐ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☒ A copy of the International Search Report (PCT/ISA/210).

## Items 13 to 23 below concern document(s) or information included:

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☒ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☒ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☒ A power of attorney and/or change of address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.
20. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).
22. ☒ Express Mail Label No. **EV 566 183 617 US**
23. ☒ Other items or information:

Postcard

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO (if known, see 37 CFR 1.5) <b>10/523460</b>		INTERNATIONAL APPLICATION NO. <b>PCT/JP2004/004504</b>		ATTORNEY'S DOCKET NUMBER <b>14321.65</b>	
24. The following fees are submitted:				Applicant use	Office use
<input checked="" type="checkbox"/> a) Basic national fee .....		<b>\$300.00</b>		\$ <b>\$300.00</b>	
<input checked="" type="checkbox"/> b) Examination fee .....		<b>\$200.00</b>		\$ <b>\$200.00</b>	
<input checked="" type="checkbox"/> c) Search fee .....		<b>\$500.00</b>		\$ <b>\$500.00</b>	
<b>TOTAL OF ABOVE CALCULATIONS =</b>		<b>\$1000.00</b>		\$ <b>\$1,000.00</b>	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole)	RATE		
- 100 =	/50 =		x \$250.00	\$ <b>\$0.00</b>	
Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492(e)).				\$	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE		
Total claims	- 20 =	0	x \$50.00	\$ <b>\$0.00</b>	
Independent claims	- 3 =	0	x \$200.00	\$ <b>\$0.00</b>	
MULTIPLE DEPENDENT CLAIMS (if applicable) <input type="checkbox"/> + \$360.00				\$ <b>\$0.00</b>	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$ <b>\$1,000.00</b>	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$ <b>\$0.00</b>	
<b>SUBTOTAL =</b>				\$ <b>\$1,000.00</b>	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$ <b>\$0.00</b>	
<b>TOTAL NATIONAL FEE =</b>				\$ <b>\$1,000.00</b>	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property +				\$ <b>\$40.00</b>	
<b>TOTAL FEES ENCLOSED =</b>				\$ <b>\$1,040.00</b>	
Amount to be refunded:				\$	
Amount to be charged:				\$	
<p>a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees. A duplicate copy of this sheet is</p> <p>c. <input checked="" type="checkbox"/> The Director is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <b>23-3178</b>. A duplicate copy of this sheet is enclosed.</p> <p>d. <input checked="" type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>					
<p><b>NOTE:</b> Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.</p> <p>SEND ALL CORRESPONDENCE TO:</p> <p><b>ERIC M. KAMERATH</b> Registration No. 46,081 Customer No. 022913</p>					
				<p> SIGNATURE</p> <p><b>Eric M. Kamerath</b> NAME</p> <p><b>46,081</b> REGISTRATION NUMBER</p>	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re International Application of

Kazuhide NAKAJIMA, Katsusuke TAJIMA, Jian ZHOU, Izumi SANKAWA,  
and Kazuo HOGARI

International Application No.: PCT/JP2004/004504

International filing date: March 30, 2004

For: SINGLE MODE OPTICAL FIBER WITH ELECTRON VACANCIES

VERIFICATION OF TRANSLATION

Honorable Commissioner of Patent and Trademark  
Washington, D.C. 20231

Sir:

Tatsuji TAKANASHI residing at c/o TANI & ABE, 6-20, Akasaka  
2-chome, Minato-ku, Tokyo 107-0052, Japan, declares:

(1) that he knows well both the Japanese and English  
languages;

(2) that he translated the claims of the  
above-identified International Application from Japanese to  
English;

(3) that the attached English translation is a true  
and correct translation of the claims, specification and  
drawings of the above-identified International Application  
to the best of his knowledge and belief; and

(4) that all statements made of his own knowledge  
are true and that all statements made on information and belief  
are believed to be true, and further that these statements  
are made with the knowledge that willful false statements and  
the like are punishable by fine or imprisonment, or both, under  
18 USC 1001, and that such false statements may jeopardize  
the validity of the application or any patent issuing thereon.

December 1, 2004

Date



Tatsuji TAKANASHI